

Keswick
Urban Sanitary Authority.



Annual Report
OF THE
Medical Officer of Health
FOR THE YEAR 1907.

KESWICK :
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REPORT.

TO THE KESWICK URBAN DISTRICT COUNCIL.

GENTLEMEN,—

It is my privilege to present to you my Report on the health of the district for the year 1907.

Vital Statistics The number of births registered during the past year was 101 as compared with 86 for 1906 and an average of 99·4 for the previous ten years ; the rate being now 22·69 per thousand. The total number of deaths which occurred was 61. To this number must be added 4 of residents of Keswick who died in public institutions beyond the district ; While from it must be deducted 2 of non-residents who died in the Mary Hewetson Cottage Hospital, thus leaving a net total of 63, with a rate of mortality of 14·15 per 1000 as compared with an average of 13·83 per 1000 for the previous five years.

On referring to Table IV it will be observed how closely the causes of death correspond to those of 1906.

There were two from Whooping Cough in infants under 1 year of age ; Phthisis accounted for 4 (rate, 8·9 per 10,000 population ; as compared with England and Wales, 11·5 during 1906 ; and Cumberland, an average of 13 for the years 1891 to 1900—per 10,000) and but for these there were none due to infectious disease.

The deaths in infants under one year numbered 12 in all, giving a rate per 1,000 births of 118·81, which will be seen (Table I) to be slightly in excess of previous years—this being accounted for by an increase in the number of those falling under the heading of “ Premature Birth and Congenital Defects.” There were no deaths of illegitimate children.

Zymotic Disease. Diphtheria, Measles, Scarlet Fever, Erysipelas and Whooping Cough have all been present to some extent.

The prevalence of **Diphtheria** at the close of 1906 was carried on into 1907, when, during the months of January, February, April, May and July there were 7 cases notified, also 1 in November and 1 in December.

The vast majority (Table III) were found in children of school age and mostly attending St. John's and Brigham schools, but apart from personal contact, which must always be considered the chief means of spreading the disease no special cause could be discovered. Possibly the slightly reduced rainfall of the last few years, the zeal of school attendance officers, and the greater precision in diagnosis of the present day may have been factors in producing this increase in the number of cases notified. The arrangement for free bacteriological diagnosis made by the Council is still taken advantage of. Out of 15 specimens sent to the Lisher Institute for analysis 6 were found to contain the bacillus associated with Diphtheria and 9 not.

The usual means of isolation and disinfection of homes and schools were adopted to prevent the disease from spreading and in addition the throats of some 80 children attending St John's Schools were examined for its presence but with negative results. A further effort has been made, through the kind co-operation of the school managers, to prevent the spread of infectious illness by sprinkling the floors of the schools with sawdust moistened with an effectual disinfectant before sweeping, and so to minimise the risks of dust infection.

Measles occurred in Epidemic form in March and April but was chiefly confined to scholars of the Crosthwaite Girls' School.

It was found at Easter, with the help of the Head-teacher, that there were only ten children attending the school who had not already been rendered insusceptible by a previous attack (the last epidemic was in 1905). These ten were excluded from school attendance for the full incubative period, with the result that one of them developed the disease at home, the remaining nine escaped altogether, and there were no further cases in the school.

Cases of **Scarlet Fever** have been so comparatively few during the last 5 years, that it is small wonder that it should have re-appeared in something like epidemic form among the large number of unprotected children now living in the district

In all only 12 cases have been notified, but as these were spread out over the last five months of the year the epidemic was made appear much more formidable than it actually was. All, with one exception, occurred in the parish of St John's, and though on searching for some possible cause certain sanitary defects were discovered and rectified, it is only on the hypothesis of infection having been repeatedly introduced from surrounding districts, where the disease has been present in epidemic form, that any explanation could be found. Every case was removed to the fever hospital with marked benefit to themselves and the community—the infected premises being afterwards disinfected by the Sanitary Inspector.

By these means, no doubt, numbers of children have been preserved from serious illness and possible death. With advancing years children become less and less liable to infection and should they become infected the attack is as a rule less and less severe, so that it is of the utmost importance that they should be tided over the years of childhood with the reasonable prospect of not taking the disease in after life.

Whooping Cough has again been to some extent prevalent and it was on account of its presence together with that of

Scarlet Fever and skin affection among the scholars of St. John's and Brigham Schools, that these schools were closed from December 9 until after the Christmas holidays.

Erysipelas has been five times reported, the origin being found usually in the patient's susceptibility rather than in any sanitary defects in his surroundings.

Phthisis though voluntarily notifiable has not been reported. It has been the cause of four deaths, and the means of prevention by disinfection and isolation at the Sanatorium in the Keswick bed are still employed.

Owing to the proximity of cases of Epidemic Cerebro-Spinal Meningitis, it was decided in March to make this a notifiable disease for six months and at the expiration of that period though no cases had arisen in the district it was further deemed advisable in view of future possibilities to add the disease to the permanent list of notifiable diseases. The public were early warned by means of handbills of their possible danger and of how to escape it, while at the same time arrangements were entered into with the Lisher Institute for the free bacteriological examination of specimens from suspected cases.

Water Supply.

The water supply has been constant and abundant throughout the year, with a large overflow from all the reservoirs, and what is most important an Act of Parliament entitled "the Keswick Urban District Council Water Act 1907," has now been passed under which the water works are secured by Statutory Authority which places the whole undertaking on a proper basis, providing amongst other things against the possibility of pollution and confirming as rights the action of the Council in abstracting water, which they had hitherto only had on sufferance. New mains have been laid between Helvellyn Street and Church Street, and a number of private services laid and relaid.

The new disposal works have been completed and
Sewerage are now in full working order, while the volume of
and the sewage to be treated has been considerably
Sewage reduced by laying a 15 inch subsoil and surface
Disposal. water drain from the river Greta, Penrith Road to
 Eskin Beck, Acorn Street, and by taking steps to prevent
 unnecessary waste of water which ultimately found its way
 into the sewers.

General. Considerable improvements have been effected by
 way of street and pavement repairs and the nuisance
 of dust arising from motors and other vehicles was largely
 mitigated by the exceptionally constant rain during the summer
 season. Nevertheless some steps should be taken, if possible, to
 render the main roads at least more free from this menace to
 health. Woolpack Court is still sadly in need of repair.

The slaughter houses are as before under careful supervision
 and have been found in good order and regularly white-washed,
 while at no time has any diseased carcase been discovered.

The common Lodging Houses remain as heretofore. They
 are regularly inspected and fairly well kept but badly con-
 structed, and it would be an incalculable boon if during the
 year something could be done either by private or public effort
 to provide a more healthy and comfortable dwelling for those
 who frequent them.

The useful work of the Veterinary Inspector still continues,
 not only does he visit the cowsheds of the district itself, but by
 the sanction of owners who send their milk into Keswick from
 without, is enabled to supervise the whole of the milk supply in
 the district. His quarterly reports to the Council have been
 uniformly favourable, and may be taken as a guarantee of the
 source from which our milk is derived.

**“ Factory & Workshops
Act.”**

Under the “ Factory and Work-
shops Act.” the bakehouses have
been regularly inspected and found

to be kept clean and in good condition. In one no notice was
posted and this was ordered to be done. The factories and
workshops have also been inspected and one additional work-
shop added to the list, making a total of 37.

I am indebted to Mr. A. Mitchell-Dawson for the following
record of the rainfall for the year, and to Mr. H. Swinburn for
that of the sunshine.

RAINFALL.

Recorded at Shu-le-crow House, Keswick, during 1907,
and the Average and Extreme Monthly Rainfalls for the past
35 years, 1873—1907.

Monthly Rainfall. Extreme Monthly Rainfalls.
Year 1907. Average of 35 years In 35 eyars

Month.	Total Depth	Days on which ·01 or m'refell	Total Depth	Days on which ·01 or m'refell	Wettest Month		Driest Month	
	Inches.	No.	Inches	No	Inches	Year	Inches	Year
January	2·30	20	6·18	19·20	14·39	1873	0·11	1881
February	3·44	13	4·73	16 11	12·74	1894	0·45	1891
March	6·21	19	4·46	17·77	13·16	1903	0·68	1900
April	2·76	16	2·90	14 60	5·28	1904	0·36	1873
May	4·75	22	3·20	15·77	6·37	1906	0·96	1896
June	6·60	27	2·95	13·88	6·60	1907	0·43	1887
July	1·77	18	4·04	17·26	8·58	1882	0 80	1876
August	4·53	23	5·46	18·80	12·49	1891	1·19	1880
September ...	0·56	8	5·30	16·94	11·52	1891	0·56	1907
October	8·01	25	6·60	19·32	15·83	1874	2 32	1879
November	5·36	20	6 29	18·69	14·94	1877	1·71	1879
December	8·40	25	6·51	19·26	13·69	1891	0·65	1890
Year..	54 69	236	58·62	207·60				

Heaviest Yearly Fall, 84·57ins. in 1903. Lowest Yearly Fall, 42·34ins.
in 1887.

Five Falls of over 3 inches in 24 hours have been recorded in the 35 years,
the heaviest being 3·65 inches upon 14th December, 1902.

ANNUAL RETURN FOR 1907. SUNSHINE.

		Hrs.	Mins.		Days.
January	..	54	0	..	16
February	..	91	0	..	19
March	..	134	30	..	26
April	..	128	25	..	26
May	..	97	35	..	17
June	..	78	50	..	22
July	..	198	20	..	28
August	..	104	25	..	26
September	..	177	10	..	27
October	..	76	55	..	18
November	..	72	5	..	19
December	..	23	30	..	14
<hr/>					
Total 1907		1236	45		258
1906		1375	5		290
1905		1348	55		286
1904		1375	5		290
1903		1236	50		258
Average		1263	26		273

MOSSES SMALL-POX HOSPITAL.

As the result of the appeal of this Council against the order of the Cumberland County Council referred to in my last Annual Report, an order has been issued by the Local Government Board excluding the Keswick Urban District from the Derwent Joint Small-pox Hospital District, so that the hospital remains as before under our own control and for own use. Fortunately there have been no cases of smallpox, but the buildings and ground are kept in good order and ready for occupation should it become necessary.

Your obedient servant,

J. R. BURNETT, M.O.H.

WHINLATTER HOSPITAL.

Whinlatter Hospital has again more than justified its existence by being the chief means of checking spread of

Scarlet Fever and possibly Diphtheria, and in providing for the proper nursing and sanitary conditions so necessary for the treatment of those who suffer from these complaints. Up to July no cases were admitted, but between July 18th and December 31st, there were two of Diphtheria, one of suspected Scarlet Fever, removed for purpose of isolation and observation and 12 of Scarlet Fever.

Of these, 10 were discharged recovered and 5 (all Scarlet-Fever) remained under treatment at the end of the year.

The periods in Hospital for the Diphtheria cases were 2 and 6 weeks respectively, and for the Scarlet Fever an average of 45 days. No structural alterations have been made during the year, and the building is in good repair both inside and out. Provision has been made for dealing with the possibility of an outbreak of fire, and also for more convenient and effectual disinfection.

Your obedient servant.

J. R. BURNETT,

Medical Superintendent.

Keswick,

February.

TABLE I.

YEAR.	Population estimated to middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT				Total Deaths in Public Institutions in the District	Deaths of Non-residents registered in Public Institutions in the District	Deaths of Residents registered in Public Institutions beyond the District	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT	
		Num-ber	Rate.‡	Under 1 Year of Age		At all Ages					Num-ber	Rate‡
				Num-ber	Rate, per 1,000 Births registered	Num-ber	Rate‡					
1	2	3	4	5	6	7	8	10	11	12	13	
1897	4451	84	18.87	6	71.42	38	8.53	1				
1898	"	101	22.69	9	99	64	14.60	4				
1899	"	113	25.38	7	61.95	62	11.67					
1900	"	99	22.24	15	151.52	78	15.27	6				
1901	"	102	22.91	16	156.86	59	13.25	1				
1902	"	89	19.99	7	78.65	59	13.25	5	0	1	57	
1903	"	119	26.73	18	151.26	67	15.	3	3	0	64	
1904	"	94	21.11	11	117.02	63	14.15	2	0	0	63	
1905	"	107	24.03	11	102.8	65	14.6	6	3	2	62	
1906	"	86	19.31	10	116.27	65	14.6	5	3		62	
Averages for years 1897-1906	4451	99.4	22.32	11.0	110.67	62	13.49	3.7	2	.75	61.6	13.83
1907	4451	101	22.69	12	118.81	61	13.7	5	2	4	63	14.15

NOTE.—The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died elsewhere.

The "Public Institutions" taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums, viz.: Mary Hewetson Cottage Hospital, Keswick; Cumberland Infirmary; Cockermouth Workhouse; and the Cumberland and Westmorland Lunatic Asylum.

Area of District in Acres } 1068
(exclusive of area }
covered by water }

Total Population at all ages, 4451
Number of inhabited houses, 1105
Average number of persons per house, 4.02

Total Population at all ages, 4451
Number of inhabited houses, 900
Average number of persons per house 4.49 } At Census, 1901

TABLE II.

II	
I.	II
Institutions within the District receiving sick and infirm persons from outside the District	Institutions outside the District receiving sick and infirm persons from the District
Mary Hewetson Cottage Hospital.	Whinlatter Isolation Hospital } for Keswick Urban District. White Moss Smallpox Hospital } Workhouse Hospital, Cockermouth. County Lunatic Asylum. Cumberland Infirmary. Silloth Convalescent Home. Edinburgh Royal Infirmary. Home for Incurables, Carlisle. Blencathra Sanatorium for Consumptives.
Is the Union Workhouse within the District? No.	

TABLE III.

**Cases of Infectious Disease notified during the
Year 1907.**

Notifiable Disease	CASES NOTIFIED IN WHOLE DISTRICT							Removed to Hospital
	At all ages	At Ages--Years						
		Under	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards	
Small-pox ..	0							
Cholera	0							
Diphtheria ..	9			7	1	1		2
Membranous Croup	5					5		0
Erysipelas ..	12		2	9	1			12
Scarlet Fever ..	0							
Typhus Fever ..	0							
Enteric Fever ..	0							
Relapsing Fever ..	0							
Continued Fever ..	0							
Puerperal Fever ..	0							
Plague	0							
Phthisis (voluntary)	0							
Cerebro Spinal Meningitis	0							
Totals	26	0	2	16	2	6	0	14

Isolation Hospital, Whinlatter, in Cockermouth Rural District, for
Keswick Urban District only.

Small-pox Hospital, White Moss, Cockermouth Rural District, provided
by the Keswick Urban District Council.

TABLE IV.**Causes of, and ages at, Death during the Year 1907.**

Causes of Death. 1	DEATHS AT THE SUBJOINED AGES							Total deaths whether of Resi- dents or Non-resi- dents in Public Institutions in the District 8
	All Ages 2	Under 1 Year 3	1 and under 5 4	5 and under 15 5	15 and under 25 5	25 and under 65 6	65 and up- wards 7	
Small-pox.. ..								
Measles								
Scarlet Fever								
Whooping-cough.. ..	2	2						
Diphtheria and Mem- branous Croup								
Croup								
Fever { Typhus								
{ Enteric								
{ Other continued..								
Epidemic influenza .								
Cholera								
Plague								
Diarrhoea								
Enteritis	1	1						
Puerperal Fever								
Erysipelas								
Other septic diseases ..	1	1						
Phthisis (Pulmonary Tuberculosis)	4				1	3		
Other tubercular diseases								
Cancer, malignant disease	6					3	3	
Bronchitis.. ..	3	1					2	
Pneumonia	5	1	1		1	1	1	
Pleurisy	1					1		
Other diseases of Respira- tory organs	3					2	1	
Alcoholism								
Cirrhosis of Liver.. ..								
Venereal diseases								
Premature Birth	3	3						
Diseases and accidents of parturition								
Heart Diseases	11				1	4	6	
Accidents								
Suicide								
Asphyxia Neonatorum ..	1	1						
Apoplexy	3					1	2	
Bright's Disease	3					2	1	
Convulsions	1		1					
Meningitis	2		1			1		
All other causes	13	2	1			3	7	
All causes	63	12	4		3	21	23	5

TABLE V.

INFANTILE MORTALITY DURING THE YEAR 1907.
Deaths from stated Causes in Weeks and Months under One Year
of Age.

CAUSE OF DEATH		Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under 1 Year
Common Infectious Diseases	Small-pox																
	Chicken-pox																
	Measles																
	Scarlet Fever																
	Diphtheria (including Membranous Croup)																
Diarrhoeal Diseases	Whooping Cough ..					2											2
	Diarrhoea, all forms ..																
	Enteritis, Muco-Enteritis, Gastro-Enteritis				1												1
Wasting Diseases.	Gastritis, Gastro-Intestinal Catarrh																
	Premature Birth ..	2	1														3
	Congenital Defects ..	1			1												2
Tuberculous Diseases.	Injury at Birth ..																
	Want of Breast-milk, Starvation																
	Atrophy, Debility, Marasmus																
Other Causes.	Tuberculous Meningitis ..																
	Tuberculous Peritonitis																
	Tabes Mesenterica																
Other Causes.	Other Tuberculous Diseases																
	Erysipelas																
	Syphilis																
	Rickets																
	Meningitis, not Tuberculous																
	Convulsions												1				1
	Bronchitis					1											1
	Laryngitis																
	Pneumonia																
	Suffocation, overlaying ..																
Other causes															1		1
																	11

Births in the Year { legitimate, 95
 { illegitimate, 6
 Deaths in the Year of { legitimate infants, 11
 { illegitimate infants, 0
 Deaths from All Causes at All Ages, 61

